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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/653,888	09/01/2000	Thomas Anthony Cofino	YOR920000607US1	5996

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HARRINGTON & SMITH LLP  
4 RESEARCH DRIVE  
SHELTON, CT 06484-6212

EXAMINER
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RHODE JR, ROBERT E

ART UNIT	PAPER NUMBER
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3625

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/653,888	<b>Applicant(s)</b> COFINO ET AL.	
	<b>Examiner</b> Rob Rhode	<b>Art Unit</b> 3625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-9,11-20 and 22-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,11-20 and 22-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Appeal***

In view of the appeal brief filed on 04-18-05, PROSECUTION IS HEREBY REOPENED. New grounds for rejection are set forth below.

To avoid abandonment of the application, Applicant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### ***35 USC 101 Rejection***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 and 23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and

(2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts. The phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts". See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Moreover, the courts have found that a claimed computer implemented process was within the "technological art" because the claimed invention was an operation being performed by a computer within a computer. See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). Finally, the Board of Patent Appeals and Interferences (BPAI) has recently affirmed a §101 rejection finding the claimed invention to be non-statutory based on a lack of technology. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

In the present case and for example in claim 1, the invention in the body of the claim recites only a trivial the use of technology in carrying out the recited method steps and therefore is not statutory. Moreover, the visualization in a graphical form can be done with paper and pencil once the user has the information. Thereby and if the invention in the body of the claim is not tied to the technological arts, environment or machine, the claim is not statutory.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**Claims 1, 4 - 7, 9 – 12, 14 – 19, 20 - 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wenig (US 6,286,030 B1) in view of Parker v. Flook, 198 USPQ 193 (1978) and Yaginuma.**

Regarding claim 1 (Previously Presented) and related claims 23 (Previously Presented) and 30 (Previously Presented), Wenig teaches a method of graphically representing clickstream data of a shopping session on a network comprising: extracting one or more shopping sessions from one or more Web server logs of one or more Web server systems of one or more online stores (see at least Abstract and Col 4, lines 27 – 40 and Figures 1 - 4); deriving one or more micro-conversions from the one or more shopping sessions, the micro-conversion comprising a shopper's conversion from one shopping step to another (see at least Col 5, lines 3 – 13). Wenig further discloses graphically representing clickstream data from one or more micro-conversions in a first visualization (see at least Col 1, lines 47 – 50, Col 5, lines 14 – 15, Col 7, lines 44 – 67, and Figures 6 and 7). At this point, it is worth noting that micro-conversion as defined in the claims as the conversion from one shopping step to the next (i.e. clicking on the next button), which are captured and stored as data in Web server logs (i.e. database). This stored data from these shopping sessions consist of recorded data as

disclosed, claimed and argued are in the form of non-functional descriptive material (MPEP 2106). Moreover, non-functional descriptive material is given little patentable weight. In that regard, the shopping steps as taught by Wenig are recorded for each session and thereby is recorded/stored data, which is considered to be non-functional descriptive material. This stored data in online methods and systems with specifics such as a kind/type of recorded data (i.e. shopping steps) are given little patentable weight. The word(s) or phrase(s) are given little patentable weight because the claim language limitation is considered to be non-functional descriptive material, which does not patentably distinguish the applicant's invention from Wenig. Thereby, the non-fictional descriptive material is directed only to the content of the data (. i.e. shopping steps - which is stored data) and does not affect either the structure or method/process of Wenig, which leaves the method and system unchanged. Moreover in Wenig, the first visualization is disclosed as being a screen shot of a particular web page (Col 9, lines 23 - 24). Like Applicant's recited first visualization, Wenig's first visualization serves to depict a point of a problem at which at least one shopping session ends prior to purchase. Again, like Applicant's recited first visualization, Wenig teaches that such point at which at least one shopping session ends serves to graphically represent the trouble spot to a user who can then proceed to produce any necessary fixes so that a user is better able to a target destination or action desired by the user/webmaster to improve the shopping for future shoppers (see at least Col 1, lines 26 – 35 and line 67, Col 2, lines 1 – 2). While Wenig does not disclose that the first visualization comprises the specific visualization recited by Applicant (i.e. "a first visualization comprising at

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least three axes...session ends"), Wenig does, nonetheless, teach that all of the necessary clickstream data used for graphically representing Applicant's recited first visualization is resolved prior to the step of actually visually representing such data. All that remains is the manner in which one of ordinary skill in the art elects to present such clickstream data in a manner manifestly discernable and more easily understood by the user.

It would have been obvious to one of ordinary skill in the art to have presented such clickstream data as a first visualization comprising at least three axes representing shopping steps and one or more lines that each correspond to at least one said shopping session, at least one of the one or more lines intersecting less than all of the axes and terminating at the axis wherein the at least one said shopping session ends. This is because, as stated by the Court in Parker v. Flook, 198 USPQ 193 (1978):

"A competent draftsman could attach some form of post-solution activity to almost any mathematical formula; the Pythagorean theorem would not have been patentable, or partially patentable, because a patent application contained a final step indicating that the formula, when solved, could be usefully applied to existing surveying techniques".

The Court in Parker makes clear that once the object of the method has been achieved, the act of graphically depicting the result does not serve to otherwise "transform" such result in any non-obvious way. In this case, the object of the method is

achieved as disclosed by Wenig--with the exception of the specific form of the graphical depiction recited by Applicant. However, this specific form of graphical depiction does not result in any further "transformation" of the result itself, but merely serves to differently represent, in manifest form, the result of the same completed method.

To that end, the Examiner notes that Applicant's specific form of graphical representation is a well-known drafting technique used to provide a graphical representation of complex data. For example, Yaginuma teaches that complex data may be graphically represented in what is described as a "parallel coordinate system" (see at least Abstract, Col 2, lines 13 –15 and lines 30 – 37, Col 6, lines 29 - 34 and Figures 2 and 6). Such system comprises at least three axes and one or more lines that each correspond to complex data retrieved and plotted in graphical "parallel coordinate system". Accordingly, the combined method of Wenig/ Parker /Yaginuma would have resulted in a non-obvious first visual representation manifest in the form of a parallel coordinate system with an indication of the termination of the shopping session being represented by a line intersecting less than all of the axes of the coordinate system as taught by Yaginuma--rather than by the screen shot of the terminal web page already taught by Wenig.

Regarding claim 4 (Previously Presented), Wenig teaches a method, where the clickstream data is a collection of micro-conversions of one or more shoppers for at least one of products and services sold in at least one online store (see at least Abstract, Col 5, lines 3 – 13).



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Regarding claim 20 (Previously Presented, Wenig teaches a method further comprising modifying at least one of Web design, navigation paths of the online store, advertisement banners, product layouts, service layouts, marketing and merchandising based on at least one of the visualizations (Col 2, lines 1 – 12).

Regarding claim 29 (Previously Presented) and related claim 36 (Previously Presented), Wenig teaches a method wherein the graphical representation is provided to the user over a network (Col 1, lines 42 – 47).

Regarding claims 5 – 7, 9 – 12, 14 – 19, 21 – 22, 24 – 28 and 31 – 36, Yaginuma is an example, in the same area of providing a visualization of complex data to enhance understanding as well as a visualization in graphic form including a parallel coordinate system (see at least Abstract, Col 1, lines 16 – 43, Col 5, lines 6 – 67, Col 6, lines 1 – 8 and 30 – 34, Col 7, lines 19 – 29 and Figures 1 – 19).

**Claims 3, 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Wenig (US 6,286,030 B1), Parker v. Flook, 198 USPQ 193 (1978) and Yaginuma (US 6,477,538 B2) as applied to claims 1, 7, 12 above, and further in view of Hunt (US 6,223,215 B1).**

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The combination of Wenig, Parker and Yaginuma substantially disclose and teach the applicant's invention.

The combination of Wenig, Parker and Yaginuma disclose product impressions that can be viewed via a hyperlink such as a basket placement of product and purchase as well as other shopping events, the combination does not specifically disclose and teach viewing via hyperlink a basket placement as well as referred web sites.

On the other hand and regarding claim 3 (Previously Presented), Hunt teaches a method, where the shopping steps include a product impression that is the a view of a hyperlink to a Web page presenting one of a product or and service, a clickthrough that is a click on the hyperlink and view of the Web page of the product or service, a basket placement that is the a placement of the one of the product and service item in the a shopping basket, and a purchase that is the a purchase of the one of the product and service (see at least Col 1, lines 49 – 52, Col 2, lines 18 – 31, Col 8, line 52 and Figure 2).

Regarding claim 8 (Previously Presented), Hunt teaches a method where the sequential events include any one or more at least one of the following: one or more steps of shopping in one or more stores, one or more product development steps, and one or more service development steps (see at least Col 2, lines 18 – 21).

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Regarding claim 13 (Previously Presented), Hunt teaches a method, where the categorizer includes one or more at least one of the following: the referrer Web sites of sessions, internet service providers of sessions, lengths of sessions, methods used to find product information by sessions, methods used to find service information by sessions, products viewed, services viewed items placed in a shopping cart, items purchased by sessions, time points of sessions, the geographic regions where sessions originated, the ages, sex, education, and income of owners of session originators, sales history of the owners of sessions, and Web page patterns accessed by one of sessions the and owners of sessions (see at least Col 2, lines 8 - 20, Col 5, lines 47 - 65 and Figure 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the combination of Wenig, Parker and Yaginuam with the method of Hunt in order to more fully understand both the origin of the shopper and to ensure that the online site provides more tailored advertising for example to individual shoppers.

The combination the Wenig, Parker and Yaginuma disclose the claim limitations for the above claims with the exception of claims 3, 8 and 13. In turn, Hunt discloses the view of a web page and a click through as a shopper shops at a site as well as referred web sites (see at least Abstract, Col 2, lines 8 - 20, Col 5, lines 47 - 65 and Figure 3).

Therefore, one of ordinary skill in the art would have been motivated to extend the combination of Wenig, Parker and Yaginuma with a method and system for viewing of a

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web page and a click through as an shopper shops at a site as well as referred web sites.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 15, 23, 24, 28, 30 and 35 - 36 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that Wenig does not teach a graph representing data as recited in claim 1 and specifically a specific manifestation of graph, which includes multi-axes displays.

First, Wenig was *not* relied on for teachings of a "multi-axis display or lines crossing those axes". Second and as noted in the applicant's arguments at page 8, third paragraph, the Applicant agrees that Wenig does teach "storing requests and responses" at web site. These request which are stored as hit(s)/data points for an online shopper converting from one point to another (i.e. clickstream) at a site. Also and noted above, the information, in manifest form, is not mathematically different for the purposes of establishing values than the information prior to plotting. The object of the method has been achieved prior to these steps and the values are not further and otherwise "transformed" and thereby forming a non-obvious modification of the visualization already taught by Wenig. In that regard and more importantly, Wenig teaches a method and system for solving the problem of analysis of multiple users navigation through a website and as importantly using the analysis to determine how to

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improve a website to achieve a particular result (Col 1, lines 26 – 67, Col 2, lines 1 – 2 and Figure 1). Moreover, Wenig discloses and would suggest to one of ordinary skill the requirement to extract from a database/web server log and visually display these shopping sessions for an analyst/user in a visualization - in order to more effectively understand and improve a customer's navigation through the site to achieve a particular result - such as purchase (Abstract, Col 2, lines 1 – 2, Col 5, lines 3 - 14 and Figures 1 – 5). Furthermore, the web site of Wenig as with an off line store too is motivated to investigate and seek methods to improve the shopping experience of customer's - to increase the probability of a sale. Thereby, Wenig would fairly suggest and teach investigating the reasons for a customer not purchasing a product and to improve the site for the customer(s) navigation and ease of use. In that regard, Wenig would have fairly suggested to one of ordinary skill a method and system that provides an method to understand the extensive captured data for a analyst/user with visualization of each customer's shopping session.

Wenig also teaches one of ordinary skill that an online shopper converting from one shopping step to another, storing this data/hits as well as extracting one or more sessions from a server at later time (see least Abstract, Col 4, lines 27 – 40, and Figures 1 – 3). Additionally, Wenig teaches that the sequential events are shopping steps in an e-commerce environment (see at least Col 5, lines 6 – 13) and at each step (i.e. micro-conversion as defined by the claims) of the online shopping process; clickstream data (i.e. hit) is captured (Col 4, lines 28 – 40 and Figures 1 - 3). Additionally, Wenig teaches extracting one or more shopping sessions from a server

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(see at least Col 7, lines 44 – 67 Figures 1 and 2). Thereby, Wenig fairly suggests and teaches one of ordinary skill in the art that the Applicant's "micro-conversion" comprises the shopping steps such as purchasing that a shopper executes at site by clicking on the purchase/order button for example. In that regard, each "micro-conversion" consists of various captured and stored data points (i.e. shopping steps) as the shopper navigates the site during the session. In turn, the "micro-conversion data" is captured and stored in a database/web server log for each user's shopping steps during a single shopping session at the site (Abstract and Figure 1). Thereby, Wenig teaches that it is important to gain information on a site visitors navigation through a site and what products were viewed as well as active steps recorded (i.e. "micro-conversion") for each shopping session(s) - such as ordering (i.e. "purchase") [Abstract, Col 1, lines 27 – 50 and Col 2, line 5]. Moreover, Wenig discloses and teaches, "extracting one or more shopping sessions" (Col 1, lines 47 – 50 and Figure 1). Furthermore, the Applicant in the their claims defines that a "micro-conversion" means a shopper's conversion from one shopping step to another. In this regard, Wenig teaches that once the shoppers moves to a next step, the shopper clicks on (i.e. data point/clickstream), for example an order button to purchase and this data point/clickstream is captured and stored in a web server log/database for each user session (see at least Abstract, Col 1, lines 27 – 50 and Figure 1). In this manner, Wenig would fairly suggest and teach, "deriving one or more micro-conversions from one or more shopping sessions" (see at least Col 1, lines 51 – 67, Col 2, lines 1 – 2 and Figures 1 and 2).

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The applicant's arguments relative to Yaginuma are considered moot based on the new grounds of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Rob Rhode** whose telephone number is **571.272.6761**.

The examiner can normally be reached Monday thru Friday 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wynn Coggins** can be reached on **571.272.7159**.

Any response to this action should be mailed to:

***Commissioner for Patents***

***P.O. Box 1450***

**Alexandria, Va. 22313-1450**

or faxed to:

**(703) 872-9306** [Official communications; including

After Final communications labeled

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For general questions the receptionist can be reached at


**571.272.3600**

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